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EXAMINER	
CHOKSHI, PINKAL R	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/576,586	MORI ET AL.	
	Examiner	Art Unit	
	PINKAL CHOKSHI	2425	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 October 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/16/2009*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 10/26/2009 with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection. See the new rejection below.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. **Claim 12** is rejected under 35 U.S.C. 103(a) as being unpatentable over US PG Pub 2002/0183026 to Naruse (hereafter referenced as Naruse) in view of US PG Pub 2003/022966 to Markman (hereafter referenced as Markman), and US PG Pub 2005/0034158 to Delavega (hereafter referenced as Delavega).

Regarding **claim 12,** "a content reproduction device that performs streaming reproduction of a content" reads on the communication quality of data between the transmission system and the receiver (abstract) disclosed by Naruse and represented in Fig. 1.

As to "the device comprising: a content reconstruction unit having a buffer in which the pieces of segmented data received by a corresponding one of said plurality of communication units is temporarily accumulated, and configured to

reconstruct the pieces of segmented data accumulated in the buffer into the content" Naruse discloses (¶0035, ¶0038 and ¶0111) that the mobile terminal includes data storage unit that stores data, such as audio, video, text, received in receiving unit and transmit the content to decoder unit as represented in Fig. 2 (element 17).

As to "a reproduction unit configured to extract the content from the buffer at a predetermined bit rate and to reproduce the content at the predetermined bit rate, the content having been reconstructed by said content reconstruction unit" Naruse discloses (¶0038) that the decoder (reproduction unit) decodes and produce the data received and stored in the storage device to the output device as represented in Fig. 2 (element 18). Naruse further discloses (¶0038 and ¶0043) that the decoder decodes contents based on the predetermined bit rate information received from the control unit.

As to "a communication control unit configured to: calculate, for every predetermined time, target transmission speeds to be assigned for content reception by causing the target transmission speeds to associate respectively with said plurality of communication units, based on the determined use order, free space in the buffer and the bit rate" Naruse discloses (¶0050) that the receiving control unit in mobile terminal calculates the transmission speed in order to control the bit rate as represented in Fig. 4. Naruse further discloses (¶0037) that the receiving control unit monitors the data storage volume to be stored in the data storage unit.

As to "transmit a first request signal indicating the calculated target transmission speeds corresponding to said plurality of communication units to the content transmission device via one of said plurality of communication units" Naruse discloses (¶0052-¶0054) that the mobile terminal requests the corrected transmission speed to the transmission control unit where transmission system transmit data matching to corrected transmission speed as represented in Fig. 4.

Naruse meets all the limitations of the claim except "a plurality of communication units, each being configured to receive pieces of segmented data of a content transmitted from a content transmission device over a communication path and a reconstruction unit, where a buffer temporarily stores this segmented data, reconstructs segmented data into the content." However, Markman discloses (¶0025, ¶0041, ¶0048) that the Media Center, located at user's site, receives media signals (audio/video signal of a program content) using tuner and programming information using modem from head–end and stores this data in memory as represented in Fig. 4 (elements 202, 203, 210). Markman further discloses (¶0085, ¶0110) that the PVR module in Media Center receives both Meta data (programming information) and media signal of the same media program, where PVR module controls a presentation of the media program using meta-data as represented in Fig. 9 (elements 406, 202, 216). Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Naruse's system by using multiple communication units to receive segmented content data as taught by Markman

so the media program does not consume excessive bandwidth and the viewer can view his/her favorite program without missing any data (¶0009).

Combination of Naruse and Markman meets all the limitations of the claim except "transmission speeds to associate with communication unit." However, Delavega discloses (¶0027 and ¶0028) that the device using LAN/WAN/Internet connections transmits/receives data associated to their speed as represented in Fig. 3.

As to "a communication fee accumulation unit configured to accumulate, in advance, communication fees of the respective communication units and determine a use order of said plurality of communication units based on the communication fees accumulated in the communication fee accumulation unit" Delavega discloses (¶0018 and ¶0048) that the viewer previously purchases program content on wholesale/unlimited use billing. Delavega further discloses (¶0027 and ¶0028) that in a WAN/Wi-fi base station, receiver receives data at upto 54 mbps and in cellular wireless network, data speed is ranging 50 to 144 kbps. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Naruse and Markman's inventions by matching transmission speed with communication unit and previously paying for program content as taught by Delavega so user can constantly receive content at all the time with correct transmission speed and also the viewer does not have to go through trouble of making payment while watching program content.

4. **Claims 1-4, 6-11, and 13-15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Naruse in view of Markman and Delavega and further in view of US Patent 6,430,620 to Omura et al (hereafter referenced as Omura).

Regarding **claim 1,** "a content reproduction device that performs streaming reproduction of a content" reads on the communication quality of data between the transmission system and the receiver (abstract) disclosed by Naruse and represented in Fig. 1.

As to "the device comprising: a content reconstruction unit having a buffer in which the pieces of segmented data received by a corresponding one of said plurality of communication units is temporarily accumulated, and configured to reconstruct the pieces of segmented data accumulated in the buffer into the content" Naruse discloses (¶0035, ¶0038 and ¶0111) that the mobile terminal includes data storage unit that stores data, such as audio, video, text, received in receiving unit and transmit the content to decoder unit as represented in Fig. 2 (element 17).

As to "a reproduction unit configured to extract the content from the buffer at a predetermined bit rate and to reproduce the content at the predetermined bit rate, the content having been reconstructed by said content reconstruction unit" Naruse discloses (¶0038) that the decoder (reproduction unit) decodes and produce the data received and stored in the storage device to the output device as represented in Fig. 2 (element 18). Naruse further discloses (¶0038 and

¶0043) that the decoder decodes contents based on the predetermined bit rate information received from the control unit.

As to "a communication control unit configured to: calculate, for every predetermined time, target transmission speeds to be assigned for content reception by causing the target transmission speeds to associate respectively with said plurality of communication units, based on free space in the buffer and the bit rate" Naruse discloses (¶0050) that the receiving control unit in mobile terminal calculates the transmission speed in order to control the bit rate as represented in Fig. 4. Naruse further discloses (¶0037) that the receiving control unit monitors the data storage volume to be stored in the data storage unit.

As to "transmit a first request signal indicating the calculated target transmission speeds corresponding to said plurality of communication units to the content transmission device via one of said communication units" Naruse discloses (¶0052-¶0054) that the mobile terminal requests the corrected transmission speed to the transmission control unit where transmission system transmit data matching to corrected transmission speed as represented in Fig. 4.

Naruse meets all the limitations of the claim except "a plurality of communication units, each being configured to receive pieces of segmented data of a content transmitted from a content transmission device over a communication path and a reconstruction unit, where a buffer temporarily stores this segmented data, reconstructs segmented data into the content." However, Markman discloses (¶0025, ¶0041, ¶0048) that the Media Center, located at

user's site, receives media signals (audio/video signal of a program content) using tuner and programming information using modem from head–end and stores this data in memory as represented in Fig. 4 (elements 202, 203, 210). Markman further discloses (¶0085, ¶0110) that the PVR module in Media Center receives both Meta data (programming information) and media signal of the same media program, where PVR module controls a presentation of the media program using meta-data as represented in Fig. 9 (elements 406, 202, 216). Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Naruse's system by using multiple communication units to receive segmented content data as taught by Markman so the media program does not consume excessive bandwidth and the viewer can view his/her favorite program without missing any data (¶0009).

Combination of Naruse and Markman meets all the limitations of the claim except "transmission speeds to associate with communication unit." However, Delavega discloses (¶0027 and ¶0028) that the device using LAN/WAN/Internet connections transmits/receives data associated to their speed as represented in Fig. 3. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Naruse and Markman's inventions by matching transmission speed with communication unit as taught by Delavega so user can constantly receive content at all the time with correct transmission speed.

Combination of Naruse, Markman, and Delavega meets all the limitations of the claim except "wherein the pieces of segmented data each includes a counter indicating an order of the segmentation performed by said content transmission device." However, Omura discloses (col.6, lines 39-60; col.7, lines 25-35, 51-67) that the server side transmission device generates a position number, in order that gradually increases from 0, in the packets, which are included in a data stream as represented in Figs. 4 and 5.

As to "said content reconstruction unit is configured to reconstruct the content by extracting the pieces of segmented data accumulated in the buffer in the order of values indicated by said respective counters" Omura discloses (col.7, line 43-col.8, line 3) that the packets data stored in the buffer of the client device is read out and reproduced by the reproducing unit where the order of packets is controlled at the receiving unit using packet/position number as represented in Fig. 1 (elements 412, 490). Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Naruse, Markman and Delavega's systems by including a counter value in the segment of stream data as taught by Omura in order to transmit the lost data packet if there is a lost packet in the buffer of the client device and to decode the segment in correct order using counter value (col.2, lines 60-62).

Regarding **claim 2,** "the content reproduction device wherein the first request signal indicates addresses for said plurality of communication units"

Omura discloses (col.6, lines 27-34) that the client device transmits a request to a server where request includes client's address. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Naruse, Markman, and Delavega's inventions by indicating addresses for communication units as taught by Omura in order to deliver wide range of entertainment and data services to users using correct transmission speed.

Regarding **claim 3,** "the content reproduction device wherein the first request signal is a content obtainment command indicating addresses for said plurality of communication units" Naruse discloses (¶0052 and ¶0053) that the mobile terminal requests the corrected transmission speed to the transmission control unit. Naruse does not explicitly teach that the request signal includes the address for communication unit. However, Omura discloses (col.6, lines 27-34) that the client device transmits a request to a server where request includes client's address. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Naruse, Markman, and Delavega's inventions by indicating addresses for communication units as taught by Omura in order to deliver wide range of entertainment and data services to users using correct transmission speed.

Regarding **claim 4,** combination of Naruse and Markman meets all the limitations of the claim except "the content reproduction device further

comprising: a communication fee storage unit which stores, in advance, communication fees of said plurality of communication units, wherein said communication control unit is configured to determine the target transmission speeds of said plurality of communication units based on the communication fees." However, Delavega discloses (¶0018 and ¶0048) that the viewer previously purchases program content on wholesale/unlimited use billing. Delavega further discloses (¶0027 and ¶0028) that in a WAN/Wi-fi base station, receiver receives data at upto 54 mbps and in cellular wireless network, data speed is ranging 50 to 144 kbps. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Naruse and Markman's inventions by previously paying for program content as taught by Delavega so the viewer does not have to go through trouble of making payment while watching program content.

Regarding **claim 6,** "the content reproduction device further comprising: a reception speed measurement unit configured to measure data reception speeds of said plurality of communication units" Naruse discloses (¶0060) that the unit determines reception/transmission speed received in mobile terminal as represented in Fig. 5 (element SP14).

As to "wherein said communication control unit is configured to: calculate modified target transmission speeds, each being calculated based on a difference between the target transmission speed assigned for the content

reception of each of said communication units and each of the data reception speeds measured by said reception speed measurement unit and transmit a second request signal indicating the calculated target transmission speeds to the content transmission device via one of said communication units" Naruse discloses (¶0048-¶0055) that the transmission system transmits pilot signal to mobile terminal where mobile terminal determines transmission speed and based on the reception speed received in mobile terminal, it transmits request of corrected transmission speed to transmission system. Transmission system receives the request of corrected transmission speed and transmits data using modulation system corresponding to corrected transmission speed and mobile terminal receives data at corrected transmission speed as represented in Fig. 4 (elements SP1-SP9).

Regarding **claim 7,** "a content transmission device that transmits a content over a communication path" reads on the communication quality of data between the transmission system and the receiver (abstract) disclosed by Naruse and represented in Fig. 1.

As to "the device comprising: a content accumulation unit configured to accumulate a content" Naruse discloses (¶0032) that the data storage unit stores content data as represented in Fig. 2 (element 12).

As to "a communication unit configured to communicate, over the communication path, with a content reproduction device that includes a plurality

of communication units with different addresses" Naruse discloses (¶0034) that the data output unit and transmission control unit communicates with mobile terminal over communication path as represented in Fig. 2 (elements 13, 14, 15, 16, 20).

As to "a content segmentation unit configured to: determine amounts of content data to be transmitted based on target transmission speeds of the respective addresses every time a first request signal indicating target transmission speeds of the respective addresses is received, the amounts of content data to be transmitted being determined for the respective addresses" Naruse discloses (¶0050) that the receiving control unit in mobile terminal calculates the transmission speed in order to control the bit rate as represented in Fig. 4. Naruse further discloses (¶0037) that the receiving control unit monitors the data storage volume to be stored in the data storage unit. Naruse further discloses (¶0052 and ¶0053) that the mobile terminal requests the corrected transmission speed to the transmission control unit as represented in Fig. 4.

As to "segment the content accumulated in said content accumulation unit and transmit each segmented data of the content addressed to each of the addresses via said communication unit" Naruse discloses (¶0034) that the transmission system transmits packetized data of audio, video, data to mobile terminal as represented in Fig. 2.

Naruse meets all the limitations of the claim except "wherein the plurality of communication units receive part of the segmented data of the content obtained by segmenting data of a single content." However, Markman discloses (¶0025, ¶0041, ¶0048) that the Media Center, located at user's site, receives media signals (audio/video signal of a program content) using tuner and programming information using modem from head–end and stores this data in memory as represented in Fig. 4 (elements 202, 203, 210). Markman further discloses (¶0085, ¶0110) that the PVR module in Media Center receives both Meta data (programming information) and media signal of the same media program, where PVR module controls a presentation of the media program using meta-data as represented in Fig. 9 (elements 406, 202, 216). Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Naruse system by using multiple communication units to receive segmented content data as taught by Markman so the media program does not consume excessive bandwidth and the viewer can view his/her favorite program without missing any data (¶0009).

Combination of Naruse and Markman meets all the limitations of the claim except "content data is transmitted based on transmission speeds of addresses". Delavega further discloses (¶0027 and ¶0028) that in a WAN/Wi-fi base station, receiver receives data at upto 54 mbps and in cellular wireless network, data speed is ranging 50 to 144 kbps. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Naruse and

Markman's inventions by previously paying for program content as taught by Delavega so the viewer does not have to go through trouble of making payment while watching program content.

Combination of Naruse, Markman, and Delavega meets all the limitations of the claim except "content transmitted to communication units with addresses". Omura discloses (col.6, lines 27-34) that the client device transmits a request to a server where request includes client's address. As to "each segmented data including a counter indicating an order of the segmentation performed" Omura discloses (col.6, lines 39-60; col.7, lines 25-35, 51-67) that the server side transmission device generates a position number, in order that gradually increases from 0, in the packets, which are included in a data stream as represented in Figs. 4 and 5.

As to "plurality of communication units reconstruct the segmented data based on the order indicated by the counter" Omura discloses (col.7, line 43-col.8, line 3) that the packets data stored in the buffer of the client device is read out and reproduced by the reproducing unit where the order of packets is controlled at the receiving unit using packet/position number as represented in Fig. 1 (elements 412, 490). Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Naruse, Markman and Delavega's systems by including a counter value in the segment of stream data as taught by Omura in order to transmit the lost data packet if there is a lost

packet in the buffer of the client device and to decode the segment in correct order using counter value (col.2, lines 60-62).

Regarding **claim 8,** "a content reproduction method for performing streaming reproduction of a content" reads on the communication quality of data between the transmission system and the receiver (abstract) disclosed by Naruse and represented in Fig. 1.

As to "the method comprising: a content reconstruction step of temporarily accumulating, in a buffer, the pieces of segmented data received in a corresponding one of the plurality of communication steps, and reconstructing the pieces of segmented data accumulated in the buffer into the content" Naruse discloses (¶0035, ¶0038 and ¶0111) that the mobile terminal includes data storage unit that stores data, such as audio, video, text, received in receiving unit and transmit the content to decoder unit as represented in Fig. 2 (element 17).

As to "a reproduction step of extracting the content from the buffer at a predetermined bit rate and reproducing the content at the predetermined bit rate, the content having been reconstructed in the content reconstruction step" Naruse discloses (¶0038) that the decoder (reproduction unit) decodes and produce the data received and stored in the storage device to the output device as represented in Fig. 2 (element 18). Naruse further discloses (¶0038 and ¶0043) that the decoder decodes contents based on the predetermined bit rate information received from the control unit.

As to "a communication control step of: calculating, for every predetermined time, target transmission speeds to be assigned for content reception by causing the target transmission speeds to associate respectively with the plurality of communication steps, based on free space in the buffer and the bit rate" Naruse discloses (¶0050) that the receiving control unit in mobile terminal calculates the transmission speed in order to control the bit rate as represented in Fig. 4. Naruse further discloses (¶0037) that the receiving control unit monitors the data storage volume to be stored in the data storage unit.

As to "transmitting a first request signal indicating the calculated target transmission speeds corresponding to the plurality of communication units to the content transmission device using one of the plurality of communication steps" Naruse discloses (¶0052-¶0054) that the mobile terminal requests the corrected transmission speed to the transmission control unit where transmission system transmit data matching to corrected transmission speed as represented in Fig. 4.

Naruse meets all the limitations of the claim except "plurality of communication steps, each receives segmented data of a content transmitted from a content transmission device and a reconstruction step, where a buffer temporarily accumulates this segmented data, reconstructs segmented data into the content." However, Markman discloses (¶0025, ¶0041, ¶0048) that the Media Center, located at user's site, receives media signals (audio/video signal of a program content) using tuner and programming information using modem from head–end and stores this data in memory as represented in Fig. 4

(elements 202, 203, 210). Markman further discloses (¶0085, ¶0110) that the PVR module in Media Center receives both Meta data (programming information) and media signal of the same media program, where PVR module controls a presentation of the media program using meta-data as represented in Fig. 9 (elements 406, 202, 216). Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Naruse system by using multiple communication units to receive segmented content data as taught by Markman so the media program does not consume excessive bandwidth and the viewer can view his/her favorite program without missing any data (¶0009).

Combination of Naruse and Markman meets all the limitations of the claim except "transmission speeds to associate with communication unit." However, Delavega discloses (¶0027 and ¶0028) that the device using LAN/WAN/Internet connections transmits/receives data associated to their speed as represented in Fig. 3. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Naruse and Markman's inventions by matching transmission speed with communication unit as taught by Delavega so user can constantly receive content at all the time with correct transmission speed.

Combination of Naruse, Markman, and Delavega meets all the limitations of the claim except "wherein the pieces of segmented data each includes a counter indicating an order of the segmentation performed by said content transmission device." However, Omura discloses (col.6, lines 39-60; col.7, lines

25-35, 51-67) that the server side transmission device generates a position number, in order that gradually increases from 0, in the packets, which are included in a data stream as represented in Figs. 4 and 5.

As to "said content reconstruction unit is configured to reconstruct the content by extracting the pieces of segmented data accumulated in the buffer in the order of values indicated by said respective counters" Omura discloses (col.7, line 43-col.8, line 3) that the packets data stored in the buffer of the client device is read out and reproduced by the reproducing unit where the order of packets is controlled at the receiving unit using packet/position number as represented in Fig. 1 (elements 412, 490). Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Naruse, Markman and Delavega's systems by including a counter value in the segment of stream data as taught by Omura in order to transmit the lost data packet if there is a lost packet in the buffer of the client device and to decode the segment in correct order using counter value (col.2, lines 60-62).

Regarding **claim 9,** "a content transmission method for transmitting a content over a communication path" reads on the communication quality of data between the transmission system and the receiver (abstract) disclosed by Naruse and represented in Fig. 1.

As to "the method comprising: a communication step of communicating, over the communication path, with a content reproduction device that includes a

plurality of communication units with different addresses" Naruse discloses (¶0034) that the data output unit and transmission control unit communicates with mobile terminal over communication path as represented in Fig. 2 (elements 13, 14, 15, 16, 20).

As to "a content segmentation step of: determining amounts of content data to be transmitted based on target transmission speeds of the respective addresses every time a first request signal indicating target transmission speeds of the respective addresses is received, the amounts of content data to be transmitted being determined for the respective addresses" Naruse discloses (¶0050) that the receiving control unit in mobile terminal calculates the transmission speed in order to control the bit rate as represented in Fig. 4. Naruse further discloses (¶0037) that the receiving control unit monitors the data storage volume to be stored in the data storage unit. Naruse further discloses (¶0052 and ¶0053) that the mobile terminal requests the corrected transmission speed to the transmission control unit as represented in Fig. 4.

As to "segmenting the content accumulated in a content accumulation unit and transmitting each segmented data of the content addressed to each of the addresses using said communication step" Naruse discloses (¶0034) that the transmission system transmits packetized data of audio, video, data to mobile terminal as represented in Fig. 2.

Naruse meets all the limitations of the claim except "wherein the plurality of communication units receive part of the segmented data of the content

obtained by segmenting data of a single content." However, Markman discloses (¶0025, ¶0041, ¶0048) that the Media Center, located at user's site, receives media signals (audio/video signal of a program content) using tuner and programming information using modem from head–end and stores this data in memory as represented in Fig. 4 (elements 202, 203, 210). Markman further discloses (¶0085, ¶0110) that the PVR module in Media Center receives both Meta data (programming information) and media signal of the same media program, where PVR module controls a presentation of the media program using meta-data as represented in Fig. 9 (elements 406, 202, 216). Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Naruse's system by using multiple communication units to receive segmented content data as taught by Markman so the media program does not consume excessive bandwidth and the viewer can view his/her favorite program without missing any data (¶0009).

Combination of Naruse and Markman meets all the limitations of the claim except "content data is transmitted based on transmission speeds of addresses". Delavega further discloses (¶0027 and ¶0028) that in a WAN/Wi-fi base station, receiver receives data at upto 54 mbps and in cellular wireless network, data speed is ranging 50 to 144 kbps. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Naruse and Markman's inventions by previously paying for program content as taught by

Delavega so the viewer does not have to go through trouble of making payment while watching program content.

Combination of Naruse, Markman, and Delavega meets all the limitations of the claim except “content transmitted to communication units with addresses". Omura discloses (col.6, lines 27-34) that the client device transmits a request to a server where request includes client’s address. As to “each segmented data including a counter indicating an order of the segmentation performed” Omura discloses (col.6, lines 39-60; col.7, lines 25-35, 51-67) that the server side transmission device generates a position number, in order that gradually increases from 0, in the packets, which are included in a data stream as represented in Figs. 4 and 5.

As to “plurality of communication units reconstruct the segmented data based on the order indicated by the counter" Omura discloses (col.7, line 43-col.8, line 3) that the packets data stored in the buffer of the client device is read out and reproduced by the reproducing unit where the order of packets is controlled at the receiving unit using packet/position number as represented in Fig. 1 (elements 412, 490). Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Naruse, Markman and Delavega’s systems by including a counter value in the segment of stream data as taught by Omura in order to transmit the lost data packet if there is a lost packet in the buffer of the client device and to decode the segment in correct order using counter value (col.2, lines 60-62).

Regarding **claim 10,** "a program stored on a computer-readable medium for a content reproduction device that performs streaming reproduction of a content, the program causing a computer to execute the steps included in the content reproduction method according to claim 8" Markman discloses (¶0118 and claim 52) that the machine readable medium storing the computer program for the above mentioned invention. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify Naruse's system by storing computer readable program on recorded medium as taught by Markman in order to easily install computer program on the other computer devices.

Regarding **claim 11,** "a program stored on a computer-readable medium for a content transmission device that transmits a content over a communication path, the program causing a computer to execute the steps included in the content transmission method according to claim 9." Markman discloses (¶0118 and claim 52) that the machine readable medium storing the computer program for the above mentioned invention. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify Naruse's system by storing computer readable program on recorded medium as taught by Markman in order to easily install computer program on the other computer devices.

Regarding **claim 13,** combination of Naruse, Markman, and Delavega meets all the limitations of the claim except "a content reproduction device wherein the pieces of segmented data each includes a counter indicating an order of the segmentation performed by said content transmission device" However, Omura discloses (col.6, lines 39-60; col.7, lines 25-35, 51-67) that the server side transmission device generates a position number, in order that gradually increases from 0, in the packets, which are included in a data stream as represented in Figs. 4 and 5.

As to "said content reconstruction unit is configured to reconstruct the content by extracting the pieces of segmented data accumulated in the buffer in order of values indicated by said respective counters" Omura discloses (col.7, line 43-col.8, line 3) that the packets data stored in the buffer of the client device is read out and reproduced by the reproducing unit where the order of packets is controlled at the receiving unit using packet/position number as represented in Fig. 1 (elements 412, 490). Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Naruse, Markman and Delavega's systems by including a counter value in the segment of stream data as taught by Omura in order to transmit the lost data packet if there is a lost packet in the buffer of the client device and to decode the segment in correct order using counter value (col.2, lines 60-62).

Regarding **claim 14,** "the content reproduction device wherein the first request signal indicates addresses for said respective communication units" Omura discloses (col.6, lines 27-34) that the client device transmits a request to a server where request includes client's address. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Naruse, Markman, and Delavega's inventions by indicating addresses for communication units as taught by Omura in order to deliver wide range of entertainment and data services to users using correct transmission speed.

Regarding **claim 15,** "the content reproduction device wherein the first request signal is a content obtainment command indicating addresses for said respective communication units" Naruse discloses (¶0052 and ¶0053) that the mobile terminal requests the corrected transmission speed to the transmission control unit. Naruse does not explicitly teach that the request signal includes the address for communication unit. However, Omura discloses (col.6, lines 27-34) that the client device transmits a request to a server where request includes client's address. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Naruse, Markman, and Delavega's inventions by indicating addresses for communication units as taught by Omura in order to deliver wide range of entertainment and data services to users using correct transmission speed.

5. **Claims 5, 16, and 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Naruse, Markman, Delavega and Omura as applied to claims 1 and 15 above, and further in view of US Patent 7,228,137 to Chinomi et al (hereafter referenced as Chinomi).

Regarding **claim 5,** "the content reproduction device further comprising: a reception state storage unit which stores, in advance, data reception speeds of said plurality of communication units at each position on the traveling route obtained by said traveling route obtainment unit" Naruse discloses (¶0097-¶0099) that the storage unit in mobile wireless terminal stores content data in case the data transmission speed decreases on the traveling path.

As to "wherein said communication control unit is configured to determine the target transmission speeds of said plurality of communication units based on free space in the buffer and the data reception speeds of said plurality of communication units at a position indicated by information on a planned transit position after the present position, the data reception speeds being stored in said reception state storage unit" Naruse discloses (¶0050) that the receiving control unit in mobile terminal determines the transmission speed in order to control the bit rate as represented in Fig. 4. Naruse further discloses (¶0037) that the receiving control unit monitors the data storage volume to be stored in the data storage unit. Naruse also discloses (¶0097-¶0099) that the storage unit in mobile

wireless terminal stores content data in case the data transmission speed decreases on the traveling path

Combination of Naruse, Markman, Delavega and Omura meets all the limitations of the claim except "a present position detection unit configured to detect a present position and a traveling route obtainment unit configured to obtain a traveling route starting from the present position detected by said present position detection unit." However, Chinomi discloses (col.5, lines 24-34) that the current position unit in the navigation device of the mobile device is configured and arranged to detect the current position of the device by using GPS as represented in Fig. 1 (element 22). Chinomi further discloses (col.5, lines 35-39) that the travel route section is configured and arranged to calculate a travel route from the current position of the device as represented in Fig. 1 (element 23). Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Naruse, Markman, Delavega, and Omura's systems by using GPS device to locate the current position and traveling route as taught by Chinomi in order to distribute program information data to mobile terminal that is within the matching communication areas (col1, lines 18-20).

Regarding **claim 16,** "the content reproduction device further comprising: a reception state storage unit which stores, in advance, data reception speeds of said respective communication units at each position on the traveling route

obtained by said traveling route obtainment unit" Naruse discloses (¶0097-¶0099) that the storage unit in mobile wireless terminal stores content data in case the data transmission speed decreases on the traveling path.

As to "wherein said communication control unit is configured to determine the target transmission speeds of said respective communication units based on free space in said buffer and the data reception speeds of said respective communication units at a position indicated by information on a planned transit position after the present position, the data reception speeds being stored in said reception state storage unit" Naruse discloses (¶0050) that the receiving control unit in mobile terminal determines the transmission speed in order to control the bit rate as represented in Fig. 4. Naruse further discloses (¶0037) that the receiving control unit monitors the data storage volume to be stored in the data storage unit. Naruse also discloses (¶0097-¶0099) that the storage unit in mobile wireless terminal stores content data in case the data transmission speed decreases on the traveling path

Combination of Naruse, Markman, Delavega and Omura meets all the limitations of the claim except "a present position detection unit configured to detect a present position and a traveling route obtainment unit configured to obtain a traveling route starting from the present position detected by said present position detection unit." However, Chinomi discloses (col.5, lines 24-34) that the current position unit in the navigation device of the mobile device is configured and arranged to detect the current position of the device by using

GPS as represented in Fig. 1 (element 22). Chinomi further discloses (col.5, lines 35-39) that the travel route section is configured and arranged to calculate a travel route from the current position of the device as represented in Fig. 1 (element 23). Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Naruse, Markman, Delavega, and Omura's systems by using GPS device to locate the current position and traveling route as taught by Chinomi in order to distribute program information data to mobile terminal that is within the matching communication areas (col1, lines 18-20).

Regarding **claim 17,** "the content reproduction device further comprising: a reception speed measurement unit configured to measure data reception speeds of said plurality of communication units" Naruse discloses (¶0060) that the unit determines reception/transmission speed received in mobile terminal as represented in Fig. 5 (element SP14).

As to "wherein said communication control unit is configured to: calculate modified target transmission speeds, each being calculated based on a difference between the target transmission speed assigned for the content reception of each of said communication units and each of the data reception speeds measured by said reception speed measurement unit and transmit a second request signal indicating the calculated target transmission speeds to the content transmission device via one of said communication units" Naruse

discloses (¶0048-¶0055) that the transmission system transmits pilot signal to mobile terminal where mobile terminal determines transmission speed and based on the reception speed received in mobile terminal, it transmits request of corrected transmission speed to transmission system. Transmission system receives the request of corrected transmission speed and transmits data using modulation system corresponding to corrected transmission speed and mobile terminal receives data at corrected transmission speed as represented in Fig. 4 (elements SP1-SP9).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US Patent 6,130,898 to Kostreski discloses simulcasting digital broadcast programs.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PINKAL CHOKSHI whose telephone number is (571) 270-3317. The examiner can normally be reached on Monday-Friday 8 - 5 pm (Alt. Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Pendleton can be reached on 571-272-7527. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Pinkal Chokshi/

Examiner, Art Unit 2425

/Brian T. Pendleton/
Supervisory Patent Examiner, Art Unit 2425